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(54) MARKING METHOD

(57)Abstract:

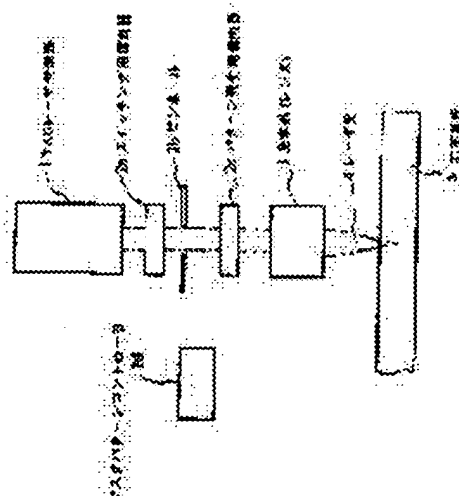
PURPOSE: To improve the manufacturing yield of a semiconductor device by making the inner part of a transparent base plate selectively opaque and marking it as the laser beam irradiates the inner part of the transparent base plate so that the focus is taken on it.

CONSTITUTION: A quartz base plate 5 is moved so that the laser beam 5 irradiates a prescribed position drawing an identification mark and the optical system 3 is

adjusted so that the focus of the laser beam 4 is positioned inside the quartz base plate 5. Then, a laser beam oscillator 1 is operated and the output is elevated gradually. When the electric field of the laser beam 4 reaches the critical electric field at a part corresponding to the focal distance, dielectric breakdown of the quartz

base plate 5 is generated and glass is made opaque over the width of several hundred μm .

Accordingly, a switching deflector 2a, a pin hole 2b, a pattern generating deflector 2c and a micro pattern controller 2d are connected so that this opaque part takes the shape of the desired mark. In this way, seeing from the surface, this opaque part can be discriminated as a white signal.



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